

RANA MACULATA DAUDIN, 1801 (AMPHIBIA) : PROPOSED
SUPPRESSION UNDER PLENARY POWERS. Z.N.(S.) 1750

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In 1801 Daudin described, in Sonnini and Latreille's great Natural History of Reptiles, a *Rana maculata* (vol. 2, pp. 161–162) which has apparently not been cited since 1841 and has never been authoritatively allocated to the synonymy of any recognized species. It antedates *Rana maculata* Brocchi, 1877, one of the earliest names applied to a well-recognized species of frog of Central America and Mexico. *Rana maculata* Daudin, although never allocated in the past, also is the earliest name applied to any species of frog of Puerto Rico and is apparently referable to the species now known as *Eleutherodactylus richmondi* Stejneger, 1904. As a senior synonym of one well-recognized species, and a senior homonym of another, *Rana maculata* Daudin is a hazard to nomenclatural stability. We hereby request its suppression in order to preserve the two names it antedates.

2. The authorship and date of publication of Sonnini and Latreille's four-volume work has been thoroughly explored by Harper (1940). It is sufficient here to say that convincing evidence exists for fixation of the date of publication as 1801, the authorship of the work as a whole as Sonnini and Latreille, and the authorship of the frog description as Daudin in Sonnini and Latreille. Redescriptions appear in two of Daudin's works (1802: 37–38, pl. 17, fig. 2; and 1803: 111–112). Tschudi (1839: 38, 78) included the name in the synonymy of *Cystignathus* (= *Leptodactylus*) *ocellatus* (Linnaeus, 1758), a species still recognized by that name, but Duméril and Bibron (1841: 397, 402) objected, stating that it belongs to some genus other than *Rana*. So far as we are aware Daudin's name has not been mentioned since.

3. That Daudin's name has not been fixed is due largely to the facts that the specimen on which it was based was lost long ago (Duméril and Bibron apparently could not find it, and Guibé, 1950, does not list it), and that none of the anuran synopses (Günther, 1859; Boulenger, 1882; Nieden, 1923) mention even the species, much less the specimens on which it was based. It is not of course mentioned in any of the reviews of *Rana*.

4. Actually the description of *Rana maculata* Daudin is the earliest record of any herpetozoan from Puerto Rico. Stejneger (1904: 556) does point out that the earliest observations on Puerto Rican herpetology were made by the members of a French expedition from 1796–1798 under the direction of Captain Baudin. Unfortunately the synopsis of the collections in Ledru's account (1810(2): 210–214) gives no clue to the fate of the herpetological material,

although some other parts were specifically mentioned as having been deposited in the Paris Museum. Daudin (1802: 38) does clearly state that the type of *Rana maculata* was in the Paris museum, and Tschudi (1839: 38) explicitly states he saw it there. No one has reported it since then. Stejneger (1904: 556) regarded it worthless to allocate Ledru's names for 12 species listed for Puerto Rico, indeed with good reason. Nevertheless it is of interest to note that Ledru did list two species of amphibians: *Rana ocellata* Linnaeus and *Rana arborea* Linnaeus. It is possible that Tschudi's reference of *Rana maculata* Daudin to *Cystignathus ocellatus* was influenced by Ledru's citation of the name, although Tschudi presumably actually saw the specimen. Ledru's *Rana arborea* (= *Hyla arborea*) was no doubt based upon one of the spatulate-toed *Eleutherodactylus* of the island, probably *portoricensis*. Daudin mentions no frog from Puerto Rico other than his *Rana maculata*.

5. The applicability of Ledru's names is of minor importance. Daudin's *Rana maculata*, however, must be dealt with. The original description (freely translated from the original French) follows:

"One can easily recognize this species by the color of the upper part of its body, which is a red-brown with three spots of a clear green on the head, and another round one of the same color on each shoulder. Its body has a slender form and is only an inch in length. The head is large, with a pointed nose and protruding eyes. It has some spots of pale gray below the eyes, and a very narrow yellowish line extending from the eyes along the sides of the body, the under side of which is granular and of a whitish gray marbled with dots and blackish streaks. All the toes are slender, elongate and completely separated.

"This new species has been reported from the island of Portorico, by Maugé, a very zealous naturalist who accompanied Captain Baudin on the recently undertaken voyage to southern seas, and described by Daudin."

6. In 1802 Daudin gave a very brief Latin diagnosis, located the three green spots on the head (one between the eyes and one small one on each tympanum), equated the digits and body form with those of *Pelodytes punctatus*, stated that it was "found under damp leaves in the mountains of the island and is in the galleries of the Muséum d'Histoire Naturelle de Paris." No significant additional information is added in the 1803 work, although he noted the death of Maugé on a later voyage to New Guinea with Capt. Baudin, and that he had amassed a "considerable collection" of birds, insects and terrestrial shellfish in Puerto Rico. No mention is made of herpetological collections. The proportions, size and coloration described and shown in his figure closely match those of *Eleutherodactylus richmondi* Stejneger, 1904, although the large green spots shown in the figure and described in his text are obviously artifacts effected in preservation. The habitat is the same, since Schmidt (1928: 62-64) found specimens "under stones or palm leaves on the trail or on damp ground" on the El Yunque, from 890 ft. to the peak of the mountain, to which it is "apparently confined". No other species known from Puerto Rico agrees satisfactorily with the information available on *Rana maculata*. We therefore conclude that *Rana maculata* Daudin, 1801, is a senior synonym of *Eleutherodactylus richmondi* Stejneger, 1904.

7. In 1877 Brocchi described a *Rana maculata* as new from Totonicapam, Guatemala. In 1881 he redescribed and figured the species (1881: 13, pl. 3, fig. 2). Boulenger (1882: 42) recognized the species as valid in his early review of the genus (as did Günther, 1900: 201-2) but later (1920: 434) synonymized it with *Rana halecina* Daudin, 1803 (= *Rana pipiens* Schreber, 1782), where Kellogg left it (1932: 203). Schmidt and Stuart (1941: 239-241) distinguished it from *Rana pipiens* but did not allocate it to any well-recognized taxon. Smith (1959: 212-216) fixed the name with a well-characterized species, but Stuart (1963: 45) synonymized it with *Rana macroglossa* Brocchi, 1877, described in the same work as *Rana maculata*, on the ground that *macroglossa* "is fairly well entrenched in the literature". Smith (*loc. cit.*) had recognized them as synonymous, but had exercised the choice of first reviser to select *Rana maculata*, the better-characterized form, with a precise type-locality, as the senior name. One of us (Lynch) has, through the courtesy of Dr. Jean Guibé, re-examined the syntypes (three each) of both nominal species, in the Muséum d'Histoire Naturelle of Paris. We here designate No. 6321 the lectotype of *Rana macroglossa* (the other specimens, Nos. 6321A-B, becoming lectoparatypes), and No. 6412A the lectotype of *Rana maculata* (the other specimens, Nos. 6412, 6412B, becoming lectoparatypes). The lectotype of *Rana macroglossa* clearly represents the species *Rana pipiens*, thus effectively eliminating the name *Rana macroglossa* from consideration in the present context. All specimens of *Rana maculata*, as well as the two lectoparatypes of *Rana macroglossa*, represent a distinct species for which *Rana maculata* Brocchi is the earliest name available. *Rana maculata* Brocchi, 1877, therefore, remains the valid name for a Central American and Mexican frog, except for its junior homonymy with *Rana maculata* Daudin, 1801.

8. It should be noted, although only of passing interest and not significant nomenclaturally, that *Rana maculata* Daudin, which we have shown belongs to another genus and should be cited in the context of present knowledge as *Eleutherodactylus maculatus* (Daudin), is a senior secondary homonym of *Hylodes maculatus* Agassiz, 1850 (= *Pseudacris triseriata maculata*), which was originally proposed in a nominal genus (*Hylodes* Fitzinger, 1843) now accepted as a junior synonym of *Eleutherodactylus* Fitzinger, 1841 (see Stejneger, 1904: 582). The 1961 Code fortunately prevents the necessity of replacement of junior secondary homonyms that are not in a state of homonymy at the time of discovery.

9. Inasmuch as the name *Rana maculata* Daudin, 1801, (1) would, if retained, replace through senior synonymy *Eleutherodactylus richmondi* Stejneger, 1904, which has remained stable for over 60 years; (2) would, if retained, require replacement through senior homonymy of *Rana maculata* Brocchi, 1877, by the name *Rana melanostoma* Günther, 1900, which has never been used since its original description as the valid name for any taxon; (3) is a *nomen oblitum* of over 150 years; and (4) has been considered a *nomen dubium* for over 150 years, we now request the Commission

- (i) To exercise its plenary powers to suppress the specific name *maculata* as used in the combination *Rana maculata* Daudin, 1801, for purposes of both the Law of Priority and the Law of Homonymy; and

(ii) To place the name *maculata*, as above, on the Official Index of Invalid and Rejected Species-Group Names in Zoology.

10. We refrain from asking that *Rana maculata* Brocchi and *Eleutherodactylus richmondi* Stejneger be added to the Official List of Specific Names in Zoology because their specific relationship to adjacent taxa remains to be determined with finality. Their conservation would, by explicit statement of the introduction to the List of Specific Names, require usage for the *species* to which they belong whether they are the earliest available names or not. Premature conservation therefore would jeopardize nomenclature, should the species, as ultimately understood, prove to contain an earlier but unconserved name. Until procedural rules are devised to prevent such occurrences we prefer to defer conservation wherever possible.

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